

2 March 1992

SG1J

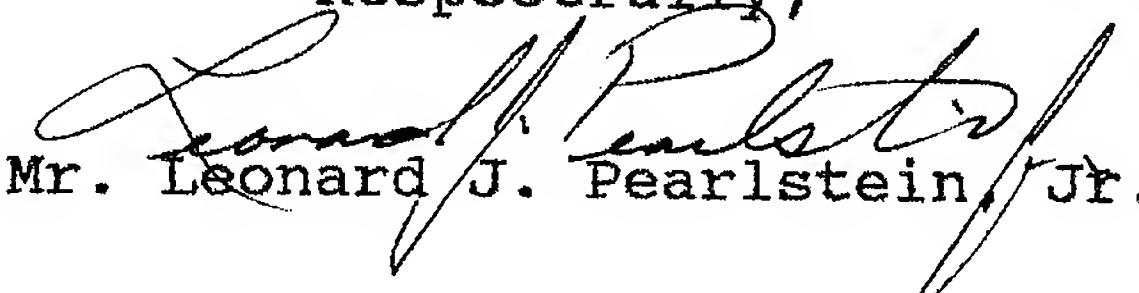
[REDACTED]
D.I.A., Pentagon
Washington, D.C. 20310

[REDACTED]
[REDACTED]
The enclosed file is for your information. Copies will be sent to J. Verona and [REDACTED]. SG1J

To be clear about why we have not included more specific information regarding "Exhibits A-Q" it is that the material, by itself or with other documentation, may have significant commercial and military value. Additionally, it will serve our agenda and we are not obliged to release materials to anyone at this time.

As other files close, we will send out similar information concerning that specific file.

Respectfully,


Mr. Leonard J. Pearlstein, Jr.

TESLA, NIKOLA (Dr.)
Research, Experiments, and Devices

U.S. Air Force Involvement
"Exhibits A-Q"

Schedule of Exhibits A-Q

Exhibit	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Date	Pages
																		----	11
																		----	11
																		----	43
																		11\08\35	14
																		05\12\40	13
																		----	17
																		circular	08
																		07\28\36	
																		10\26\37	03
																		12\15\37	02
																		01\07\38	01
																		04\05\38	02
																		----	10
																		----	05
																		12\27\41	01
																		----	19+1
																		----	15
																		03\05\04	429-431
																		10\16\27	457&460
																		05\24\28	204-214
																		04\20\35	04

ABSTRACTS OF DR. NIKOLA TESLA'S WRITINGS
RETAINED AS EXHIBITS
FOR THE ALIEN PROPERTY CUSTODIAN

1. On January 26 and 27, 1943, an examination was made of the technical papers of Dr. Nikola Tesla which, after his decease, had been stored in the Manhattan Warehouse in New York City. This examination was made for the purpose of determining if any ideas of significant value in the present United States war effort could be found among his possessions. Participating in this examination were Mr. John C. Newington, New York Office of the Alien Property Custodian; Mr. Charles J. Hedetniemi, Washington Office of the Alien Property Custodian; Dr. John G. Trump, Office of Scientific Research and Development, Massachusetts Institute of Technology, Cambridge, Massachusetts; Willis George, Office of Naval Intelligence, Third Naval District; Edward Palmer, Chief Yeoman, USNR; John J. Corbett, Chief Yeoman, USNR.

2. The following papers, which are regarded as typical of Nikola Tesla's writings and thoughts in the period 1925 to 1942, were removed for the purpose of record and are listed below in the random order in which they were found, together with a brief individual abstract.

Exhibit A

"Possibilities of Electrostatic Generators" - an undated article probably written about 1934 discussing the possibilities, as a source of high-voltage D-C power, of the Van de Graaff type of electrostatic belt generator. The article states correctly the electrostatic principles employed in this device and points out that such generators are not suitable for commercial high-power applications, though of undoubtedly scientific value. Tesla's wireless tower, erected in 1902 on Long Island, is stated in this memorandum to have been charged to 30 million volts.

Exhibit B

"Reactive Forces of Glycerine and Dynamite" - an undated memorandum involving some calculations of the explosive power of certain compounds and then deviating to a discussion of the possibility of transmitting power by mechanical vibrations along the earth's crust.

51

Exhibit C

"Process of De-Gassifying, Refining, and Purifying Metals" - a 41-page memorandum probably written about 1930 dealing with the above subject and proposing new theories of capillarity and surface tension. This correspondence indicated that this had been submitted to various industrial companies.

Exhibit D

"Reply to Amtorg re 'the generation of high voltage and the acceleration of charged particles'" - This document, dated November 8, 1935, answers questions raised by Soviet engineers and scientists regarding Tesla's proposal of May 16, 1935. From this answer, it is deduced that the proposal concerned the generation of high voltages by electrostatic means. These means consisted of a high-voltage terminal presumably supported on an insulating column and charged by a gaseous charge conveying medium passing between ground and terminal. The ideas contained in this memorandum are fairly similar to the belt-conveyor electrostatic generator methods proposed by Van de Graaff and do not appear to offer any unusual features.

Exhibit E

"Art of Telegeodynamics, or Art of Producing Terrestrial Motions at Distance" - This document, in the form of a letter dated June 12, 1940, to the Westinghouse Electric & Manufacturing Company, proposes a method for the transmission of large amounts of power over vast distances by means of mechanical vibrations of the earth's crust. The source of power is a mechanical or electromechanical device bolted to some rocky protuberance and imparting power at a resonance frequency of the earth's crust. The proposed scheme appears to be completely visionary and unworkable. Westinghouse's reply indicates their polite rejection of this idea.

Exhibit F

"New Art of Projecting Concentrated Non-Dispersive Energy through Natural Media" - This undated document by Tesla describes an electrostatic method of producing very high voltages and capable of very great power. This generator is used to accelerate charged particles, presumably electrons. Such a beam of high-energy electrons passing through air is the "concentrated non-dispersive" means by which energy is transmitted through natural media. As a component of this apparatus there is described an open-ended vacuum tube within which the electrons are first accelerated.

3.

Exhibit F (cont.)

The proposed scheme bears some relation to present means for producing high-energy cathode rays by the cooperative use of a high-voltage electrostatic generator and an evacuated electron acceleration tube. It is well known, however, that such devices, while of scientific and medical interest, are incapable of the transmission of large amounts of power in non-dispersed beams over long distances. Tesla's disclosures in this memorandum would not enable the construction of workable combinations of generator and tube even of limited power, though the general elements of such a combination are succinctly described.

Exhibit G

A circular by Carol Bird, dated September 10, 1938, entitled "Tremendous New Power Soon to Be Unleashed". This describes in popular style some biographical information concerning Nikola Tesla and some ideas for the transmission of power on which he is stated to be working. It appears that the method of transmission is by the mechanical resonance method outlined in Exhibit F, above.

Exhibit H

This exhibit consists of a series of letters to representatives of the British Government dated August 28, 1936; October 26, 1937; December 15, 1937; and April 5, 1938. It includes a reply dated January 7, 1938, from the British Government. These letters offer to the British Government, for a fee, the disclosure of a means for accelerating to high energies minute particles. Such beams would constitute a death ray capable of the protection of Great Britain from air attack.

The method proposed is essentially that described in Exhibit F above. Following the initial letter dated August 28, 1936, the subsequent letters attempt to clear up the "misunderstandings" of the British representatives and to expedite their acceptance of the Tesla proposal. The British reply dated January 7 is a polite expression of disinterest in the proposal.

Exhibit I

An undated memorandum written after Tesla's 79th birthday describing several discoveries which he believed he had made. The first related to a dynamic theory of gravity which is described as not yet completed. The second stated as a physical truth the belief that "there is no energy in matter other than that received from the environment". This second statement, which is discussed at length in this and other writings of Tesla, indicates his disbelief in the existence of atomic or nuclear energy.

Exhibit J

"A Method of Producing Powerful Radiations" - an undated memorandum in Tesla's handwriting describing "a new process of generating powerful rays or radiations". The memorandum reviews the works of Lenard and Crookes, describes Tesla's work on the production of high voltages, and finally in the last paragraph gives the only description of the invention contained in the memorandum. This description is as follows: "Briefly stated, my new simplified process of generating powerful rays consists in creating through the medium of a high-speed jet of suitable fluid a vacuous space around a terminal of a circuit and supplying the same with currents of the required tension and volume".

Exhibit K

A letter to prospective licensees on telegeodynamics dated December 27, 1941. This is a single-page letter with the type-written signature of Dr. Nikola Tesla, in which he addresses himself to the prospective licensees of telegeodynamics, states that over a half million dollars was spent on this development with funds contributed by the Morgans, Crawford, J. J. Astor, and Fish, as well as commercial organizations, and states this to be a new art with which "unbelievable wonders can be achieved".

Exhibit L

Tesla's "New System of Fluid Propulsion". This is an undated memorandum of about 20 typewritten pages describing a system of fluid propulsion in which the conversion from hydraulic to rotary mechanical power is achieved by passing the fluid between flat circular disks, shaft-mounted and enclosed in a casing.

This memorandum written about 1925 describes in general terms a kind of hydraulic turbine which seems practical. There is copious evidence among the other of Tesla's papers that this idea was generally disclosed to appropriate individuals and that it received favorable comment and possibly some use. Some of these comments are contained on the last page of the exhibit.

Exhibit M

"The Power of the Future" - a memorandum apparently written by Tesla and probably in response to a request from some popular science group for an opinion as to the source of future power. This memorandum reviews the gradual evolution of power sources. It discusses in some detail the possibility of atomic power and states as his opinion that atomic power is not feasible. The discussion of atomic energy is apparently confused to some extent

Exhibit M (cont.)

with planetary energy. The article further discusses the subject of wind, tides, lightning, and water power as a source of commercial energy. The last sentence of this memorandum states: "With my wireless system, it is practicable to transmit electrical energy at a distance of twelve thousand miles with a loss not exceeding 5 per cent. I can conceive of no advances which would be more desirable at this time and more beneficial to the further progress of mankind." This memorandum constitutes an interesting generalized discussion of the various sources of power. It is qualitatively correct for the most part except probably in that portion which deals with atomic power.

Exhibit N

"The Transmission of Electric Energy Without Wires" - an article by N. Tesla in the Electric World, March 5, 1904, pages 429-431. A general, somewhat biographical article on Tesla's early work with some speculation on the possibility of long-distance wireless transmission of large amounts of energy.

Exhibit O

"World System of Wireless Transmission of Energy" - an article by N. Tesla in Telegraph and Telephone Age, October 16, 1927, pages 457 and 450. An article which traces the early work on the production and transmission of electromagnetic radiations, describes Tesla's efforts to increase the amount of power which can be transmitted without wires and concludes with a proposed "World System" for the wireless transmission of both power and communications. No workable disclosure of a means for accomplishing this is included, and such generalities as suggest the approach which Tesla had in mind do not seem capable of accomplishing the desired result.

Exhibit P

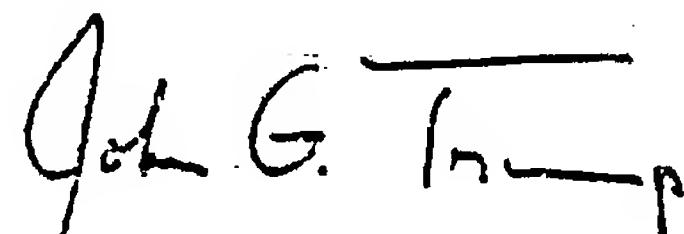
"Interview with Dr. Nikola Tesla" by Alden P. Armagnac for Popular Science Monthly, May 24, 1928. An 11-page memorandum written in popular conversational style describing an interview with Dr. Tesla and reporting his present work. This report includes statements on a new airplane, on rocket ships, on the wireless transmission of power, on a world system plan for the transmission of speech and television, on the impracticability of harnessing atomic energy, on radio activity, and on the acceleration of charged particles, such as cathode rays, by high voltages.

Exhibit Q

An agreement dated April 20, 1935, between Nikola Tesla and the Amtorg Trading Corporation, in which Tesla agreed to supply plans, specifications, and complete information on a method and apparatus for producing high voltages up to fifty million volts, for producing very small particles in a tube open to air, for increasing the charge of the particles to the full voltage of the high potential terminal, and for projecting the particles to distances of a hundred miles or more. The maximum speed of the particles was specified as not less than 350 miles per second. The receipt of \$25,000 fee for this disclosure was acknowledged in this agreement, which was signed by Nikola Tesla and by A. Bartenian of the Amtorg Trading Corporation. The method referred to in this agreement is apparently that described in Exhibit F, above. It is probable that Exhibit D, above, is an effort by Tesla to clear up the questions raised by Soviet engineers after the subject disclosure had been made. There is no evidence that the inventions and information referred to in this agreement are other than those described in a number of Tesla's papers and published articles. It should therefore be expected, and it is substantiated by Exhibit D, that this disclosure subsequently proved unworkable.

3.

An examination of several items of scientific apparatus among the Tesla efforts at the Manhattan Warehouse and in a deposit box at the Governor Clinton Hotel showed these to be standard electrical measuring instruments in common use several decades ago.



JOHN G. TRUPP,
Technical Aide,
Division 14, NDRC.

Mass. Inst. of Tech.,
Cambridge, Mass.,
January 30, 1943.

JGT/G

Retyped for clarity

KOV V URRM NR168 WD

From ATSC Wrightfld Ohio 212115Z

21 Aug 1945

To CG AAF Wash DC

GRNC

TSPMP2A-8-1259 reference telephone conversation this date between major Falconer CMA HQ CMA ATSC and Mr Weinland CMA HQ CMA ATSC PD Request CG CMA ATSC be furnished confirmation of VOCG for the TD of Pvt Bloyce D Fitzgerald CMA 36916980 from 4000TH AAFBU CMA Wright Field CMA Dayton Ohio to Wash DC for a period of seven paren 7 paren days for the purpose of securing property clearance on enemy impounded property PD

Singed PERS and BASE S[]RV Div

JM

Certified True Copy

\s\ signed

Major A.C.

Retyped for clarity

Office of the Alien Property Custodian
Mr. Loyd L. Shaulis, Secretary
Room 603
National Press Building
Washington 25, D.C.

Attention Mr. Donald Sham:

Dear Sir:

Confirming the conversation of Pvt. Bloyce D. Fitzgerald of the Air Technical Service Command with you on 28 August 1945, will you please foward photostatic copies of the material from the estate of Dr. Nikola Tesla as follows:

Exhibits

A	J
B	K
D	L
E	M
F	N
G	O
H	P
I	Q

It is understood that included in the above exhibits is a letter from Dr. Nikola Tesla to J.P. Morgan, Esq., dated 29 November 1934 and a document entitled "Process of Degassifying, Refining, and Purifying Metals."

The exhibits of Dr. Nikola Tesla's material will be used in connection with projects for national defense by this department.

All of the material will be returned to your office within a reasonable length of time.

It will be greatly appreciated if you will send the requested material to the Air Technical Service Command, Equipment Laboratory, Control Equipment Branch, Wright Field, Dayton, Ohio, to the attention of Lt. Robert E. Houle, Research and Evaluation Unit.

Very Truly Yours,
\s\ Signed, Maj. AC
For:
T.B. Holliday
Col., Air Corps
Chief, Equipment Laboratory
Propulsion and Accessories Subdivision
Engineering Division

Retyped for clarity

September 11, 1945

Col. T.B. Holliday
Chief, EL-PAS\ED
Air Technical Service Command
Wright Field, Dayton, Ohio

Dear Col. Holliday:

Reference is made to your letter of September 5, 1945, requesting certain photostated materials in possession of this office from the estate of Dr. Nikola Tesla. Pursuant to your request the materials listed on the attached have been forwarded by registered mail to the Air Technical Service Command, Equipment Laboratory, Control Equipment Branch, Wright Field, Dayton, Ohio, in care of Lt. Robert H. Houle.

These data are made available to the Army Air forces by this office on the understanding that they are to be used by you in certain experiments that are being made for national defense purposes. When the documents have served your purpose, please return them to this office.

Sincerely Yours,

\s\
Loyd B. Shaulis
Secretary

Retyped for clarity

TSEPL-3N2\R[]M\HLE
19 October 1945

TSEPG (TSEPL-3N2)

Federal Bureau of Investigation
Federal Court House Building
New York, New York

[REDACTED] SG1

Gentlemen:

It is requested that in the interest of National Defense, access be given to the effects of Dr. Nikola Tesla held in Manhattan Warehouse at 57th Street, New York City, New York.

We are desirous of obtaining pertinent information concerning projects under consideration by the Control Equipment Branch of the Equipment Laboratory, Engineering Division, Air Technical Service Command.

It is understood that Dr. Tesla was well versed in the particular field of investigation under study by the Army Air Forces, and it is believed that data from his estate may assist us further.

Respectfully Yours,

L.C. Craigie
Brigadier General, U.S.A.
Chief, Engineering Division

Retyped for clarity

October 24, 1947

Commanding Officer
Air Technical Service Command,
Wright Field,
Dayton, Ohio

Dear Sir:

The records of this office show that on or about September 11, 1945, we forwarded by registered mail certain photostated materials in possession of this office from the estate of Dr. Nicola Tesla to Air Technical Service Command, Equipment Laboratory, Control Equipment Branch, Wright Field, Dayton, Ohio. This material was forwarded at the request of Colonel T.B. Holliday as contained in his letter of September 5, 1945.

Our records do not reveal that this material has been returned. If this material has served the purpose of the Air Technical Service Command, we would appreciate your returning it to this office. In order to facilitate the identification of the material concerned, there is enclosed a schedule describing the documents which were forwarded by this office.

Sincerely Yours,

David L. Bazalen
Assistant Attorney General
Director, Office of Alien Property

Retyped for clarity

Headquarters
Air Material Command

TSELP-5

TSELP-5, JOF-ER
25 November 1947

Subject: Photostated materials from the Estate of Dr. Nicola Tesla.

To: Department of Justice
Office of Alien Property
Washington 25, D.C.
Attn: DS;JMCD;LM

1. With reference to your letter of 24 October 1947 to the Commanding Officer, Air Technical Service Command, inquiring as to the disposition of reports from the Estate of Dr. Nicola Tesla, the following information is submitted.

2. These reports are now in the possession of the Electronic Subdivision, Engineering Division, Air Material Command, and are being evaluated with the view toward extracting any information which may prove to be of value to the Government Service. It is expected that the evaluation will be completed by 1 January 1948. At that time your office will be contacted with respect to final disposition of these papers.

3. Your cooperation is appreciated in extending the use of this material, and every effort will be made to expedite the evaluation.

For the Commanding General:

M. Duffy
Colonel, USAF
Chief, Electronic Plans Section
Electronic Subdivision
Engineering Division

Exhibits A-Q Status: LOCATED
FILE CLOSED
12 FEBRUARY 1992